

WHAT IS CLAIMED IS:

1. A method for efficient utilization of transmission resources in a wireless network, comprising:
in response to at least unsuccessfully
5 receiving a radio frame for a packet from a wireless link, requesting retransmission of the frame up to an allowed number of retransmissions; and
in response to at least unsuccessfully
10 receiving the frame from the allowed number of retransmissions, generating a signal for transmission to a device transmitting the frame, the signal operable to prevent the device from transmitting a set of remaining frames for the packet.
- 15 2. The method of Claim 1, wherein the signal comprises a bitmap identifying the frame and identifying a disparate frame for retransmission.
- 20 3. The method of Claim 1, wherein the radio frame identifies the packet and the signal for transmission to the device transmitting the frame identifies the packet.
- 25 4. The method of Claim 1, further comprising:
determining a position of the frame in a set of related frames for the packet; and
determining the allowed number of retransmissions for the frame based on the position of the frame in the set of related frames.
- 30 5. The method of Claim 4, wherein the allowed number of retransmissions for the frame increases as the

position of the frame in the set of related frames increases.

6. The method of Claim 4, wherein the set of
5 related frames comprises all frames for the packet.

7. The method of Claim 4, wherein the set of related frames comprises a set of successfully received frames for the packet.

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8. The method of Claim 1, wherein the signal for transmission to the device transmitting the frame is operable to prevent the device from transmitting the set of remaining frames by causing the device to drop the set
15 of remaining frames.

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9. A system for efficient utilization of transmission resources in a wireless network, comprising:

means, in response to at least unsuccessfully receiving a radio frame for a packet from a wireless link, for requesting retransmission of the frame up to an
5 allowed number of retransmissions; and

means, in response to at least unsuccessfully receiving the frame from the allowed number of retransmissions, for generating a signal for transmission
10 to a device transmitting the frame, the signal operable to prevent the device from transmitting a set of remaining frames for the packet.

10. The system of Claim 9, wherein the signal
15 comprises a bitmap identifying the frame and identifying a disparate frame for retransmission.

11. The system of Claim 9, wherein the radio frame identifies the packet and the signal for transmission to
20 the device transmitting the frame identifies the packet.

12. The system of Claim 9, further comprising:
means for determining a position of the frame in a set of related frames for the packet; and
25 means for determining the allowed number of retransmissions for the frame based on the position of the frame in the set of related frames.

13. The system of Claim 12, wherein the allowed
30 number of retransmissions for the frame increases as the position of the frame in the set of related frames increases.

14. The system of Claim 12, wherein the set of related frames comprises all frames for the packet.

5 15. The system of Claim 12, wherein the set of related frames comprises a set of successfully received frames for the packet.

10 16. The system of Claim 9, wherein the signal for transmission to the device transmitting the frame is operable to prevent the device from transmitting the set of remaining frames by causing the device to drop the set of remaining frames.

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17. A system for efficient utilization of transmission resources in a wireless network, comprising:

logic encoded in media; and

the logic operable to request retransmission of an
5 unsuccessfully received radio frame up to an allowed
number of retransmissions and, in response to at least
unsuccessfully receiving the frame from the allowed
number of retransmissions, to generate a signal for
transmission to a device transmitting the frame, the
10 signal operable to prevent the device from transmitting a
set of remaining frames for a packet to which the frame
belongs.

18. The system of Claim 17, wherein the signal
15 comprises a bitmap identifying the frame and identifying
a disparate frame for retransmission.

19. The system of Claim 17, wherein the radio frame
identifies the packet and the signal for transmission to
20 the device transmitting the frame identifies the packet.

20. The system of Claim 17, the logic further
operable to determine a position of the frame in a set of
related frames for the packet and to determine the
25 allowed number of retransmissions for the frame based on
the position of the frame in the set of related frames.

21. The system of Claim 20, wherein the allowed
number of retransmissions for the frame increases as the
30 position of the frame in the set of related frames
increases.

22. The system of Claim 20, wherein the set of related frames comprises all frames for the packet.

23. The system of Claim 20, wherein the set of
5 related frames comprises a set of successfully received frames for the packet.

24. The system of Claim 17, wherein the signal for
transmission to the device transmitting the frame is
10 operable to prevent the device from transmitting the set
of remaining frames by causing the device to drop the set
of remaining frames.

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26. A network element for a wireless network,
comprising:

logic encoded in media; and

the logic operable to drop a set of remaining frames
5 for a packet identified by a receiving device as having a
frame unsuccessfully received after an allowed number of
retransmissions.

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27. A signal propagated on a wireless medium,
comprising:

an indication of radio frames requiring
retransmission;

5 an indication of dropped radio frames; and

an identifier of a packet to which the dropped radio
frames belong.

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